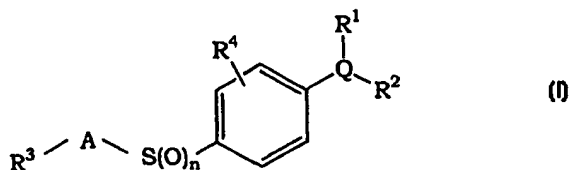




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(74) Agent: TAKASHIMA, Hajime; Yuki Building, 3-9, Hiranomachi 3-chome, Chuo-ku, Osaka-shi, Osaka 541-0046 (JP).			

(54) Title: PYRAZOLE COMPOUNDS AS COX-2 INHIBITORS



(57) Abstract

A compound of formula (I), wherein R¹ is halo(lower)alkyl, halogen or cyano, R² is aryl optionally substituted with substituent(s) selected from the group consisting of halogen, lower alkoxy, cyano, nitro, lower alkenyl, amino, acyl and hydroxyimino, R³ is hydrogen, hydroxy, acyloxy, lower alkoxy optionally substituted with lower alkoxy, amino optionally substituted with hydroxy or lower alkyl, lower alkylthio, or lower alkylsulfonyl, R⁴ is hydrogen or halogen, Q is pyrazolyl, A is lower alkylene optionally substituted with oxo or hydroxy, and n is 0, 1 or 2, provided that when R³ is hydrogen, R² is aryl substituted with lower alkenyl or A is lower alkylene substituted with oxo, or its salt, processes for their preparation and pharmaceutical compositions.

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP 99/05289

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D231/16 C07D231/14 C07D231/12 A61K31/415 A61P29/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 97 13755 A (FUJISAWA PHARMACEUTICAL CO ; MATSUO MASAOKI (JP); OKUMURA KAZUO (JP) 17 April 1997 (1997-04-17) claim 1	2-12
A	TSUJI ET AL: "Studies on anti- inflammatory agents. V. Synthesis and pharmacological properties of 3-(difluoromethyl)-1-(4-methoxyphenyl)- 5-(4-(methylsulfinyl)phenyl)pyrazole and related compounds" CHEMICAL AND PHARMACEUTICAL BULLETIN, JP, PHARMACEUTICAL SOCIETY OF JAPAN, TOKYO, vol. 45, no. 9, September 1997 (1997-09), pages 1475-1481, XP002112607 ISSN: 0009-2363	2-12



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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"Z" document member of the same patent family

Date of the actual completion of the international search

15 March 2000

Date of mailing of the international search report

24/03/2000

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP 99/05289

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	TSUJI ET AL: "Studies on anti-inflammatory agents. IV. Synthesis and pharmacological properties of 1,5-diarylpurazoles and related derivatives" CHEMICAL AND PHARMACEUTICAL BULLETIN, JP, PHARMACEUTICAL SOCIETY OF JAPAN. TOKYO, vol. 45, no. 6, June 1997 (1997-06), pages 987-995, XP002112608 ISSN: 0009-2363	2-12
A	US 5 486 534 A (LEE LEN F ET AL) 23 January 1996 (1996-01-23)	2-12

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP 99/05289

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 10
because they relate to subject matter not required to be searched by this Authority, namely:
Remark: Although claim 10
is directed to a method of treatment of the human/animal
body, the search has been carried out and based on the alleged
effects of the compounds.
2. ☒ Claims Nos.: 1
because they relate to parts of the International Application that do not comply with the prescribed requirements to such
an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all
searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment
of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report
covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is
restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 1

Present claim 1 relates to an extremely large number of possible compounds. Support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT is to be found, however, for only a very small proportion of the compounds claimed. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Consequently, the search has been carried out for those parts of the claims which appear to be supported and disclosed, namely those parts relating to the compounds according to claim 2.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP 99/05289

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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